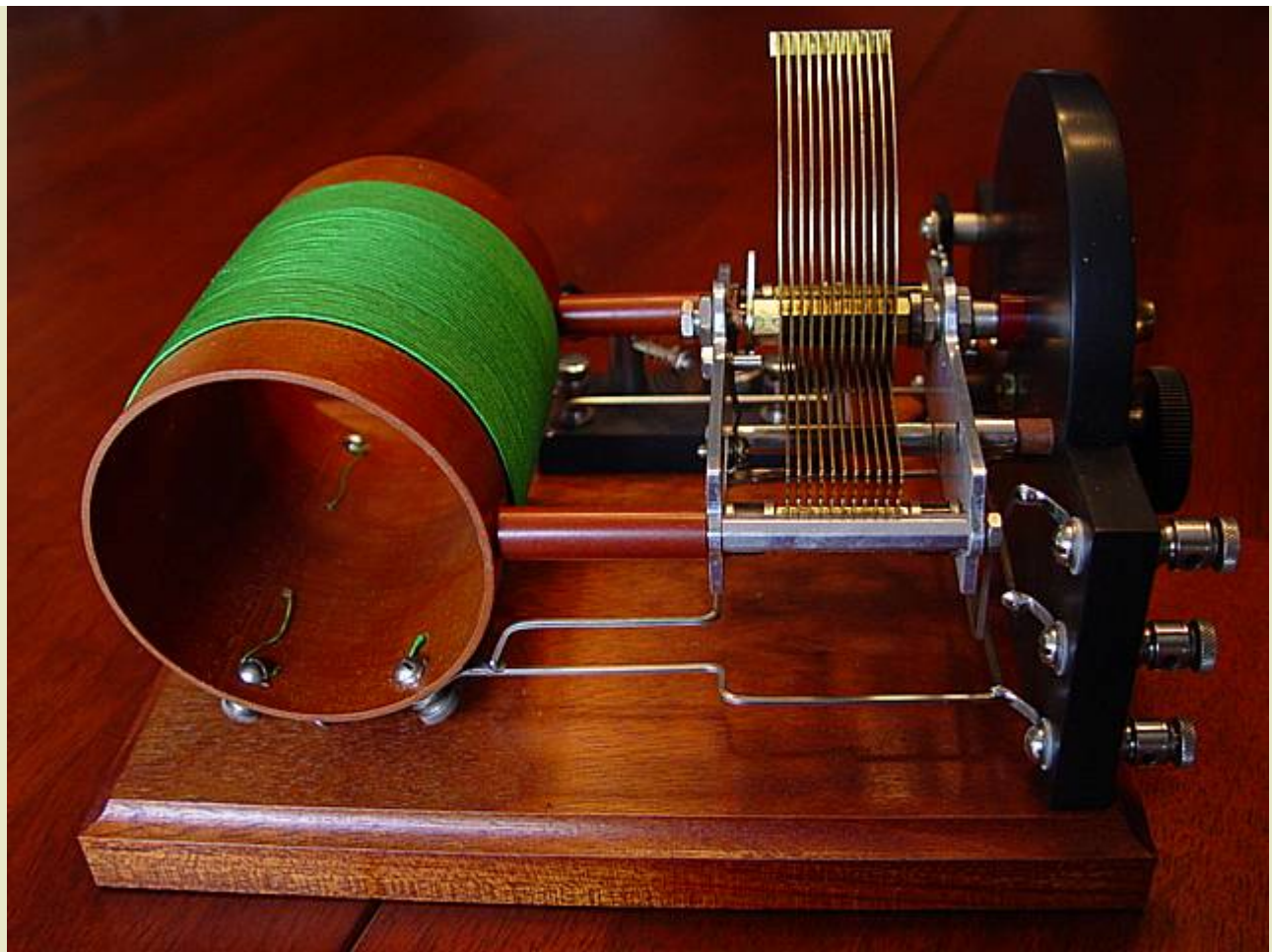


The Mystery Crystal Set

This is my version of the famous Mystery Crystal Set from Australia. [Click Here](#) for a complete set of plans and a brief history of the set.

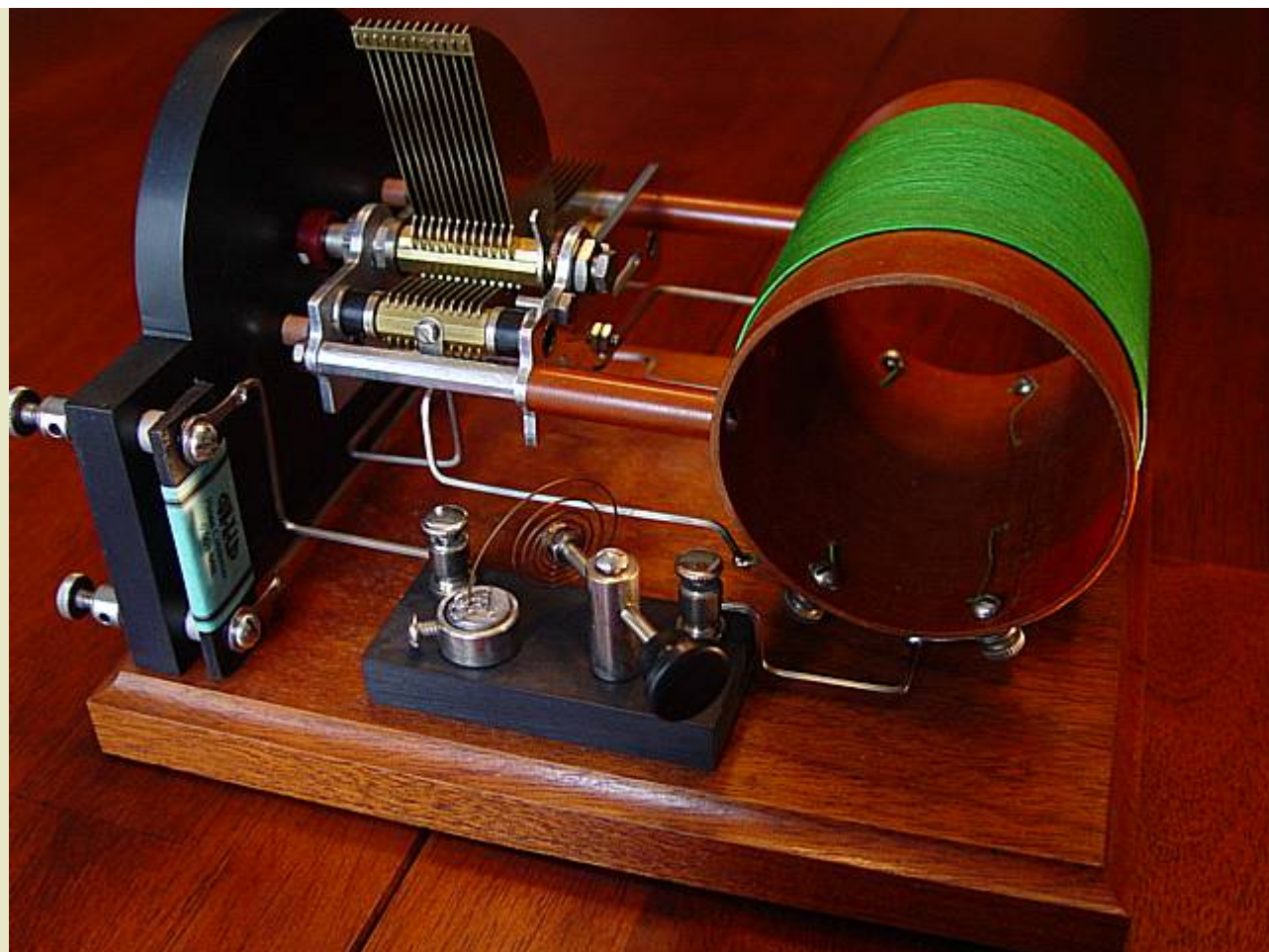


Front view showing the nice vintage Apex dial I used. The black plastic material is half-inch thick DuPont Delrin®, which looks like the old hard rubber that was used in the 1920's and 30's. It is very hard and machines easily as you can see by the fancy cut over the dial. This was the first time I used this, and I was very pleased with the results. The binding posts are authentic NOS 1920's style. The three on the left are for the various combinations of antenna and ground connections. The two on the right are for the headphones.

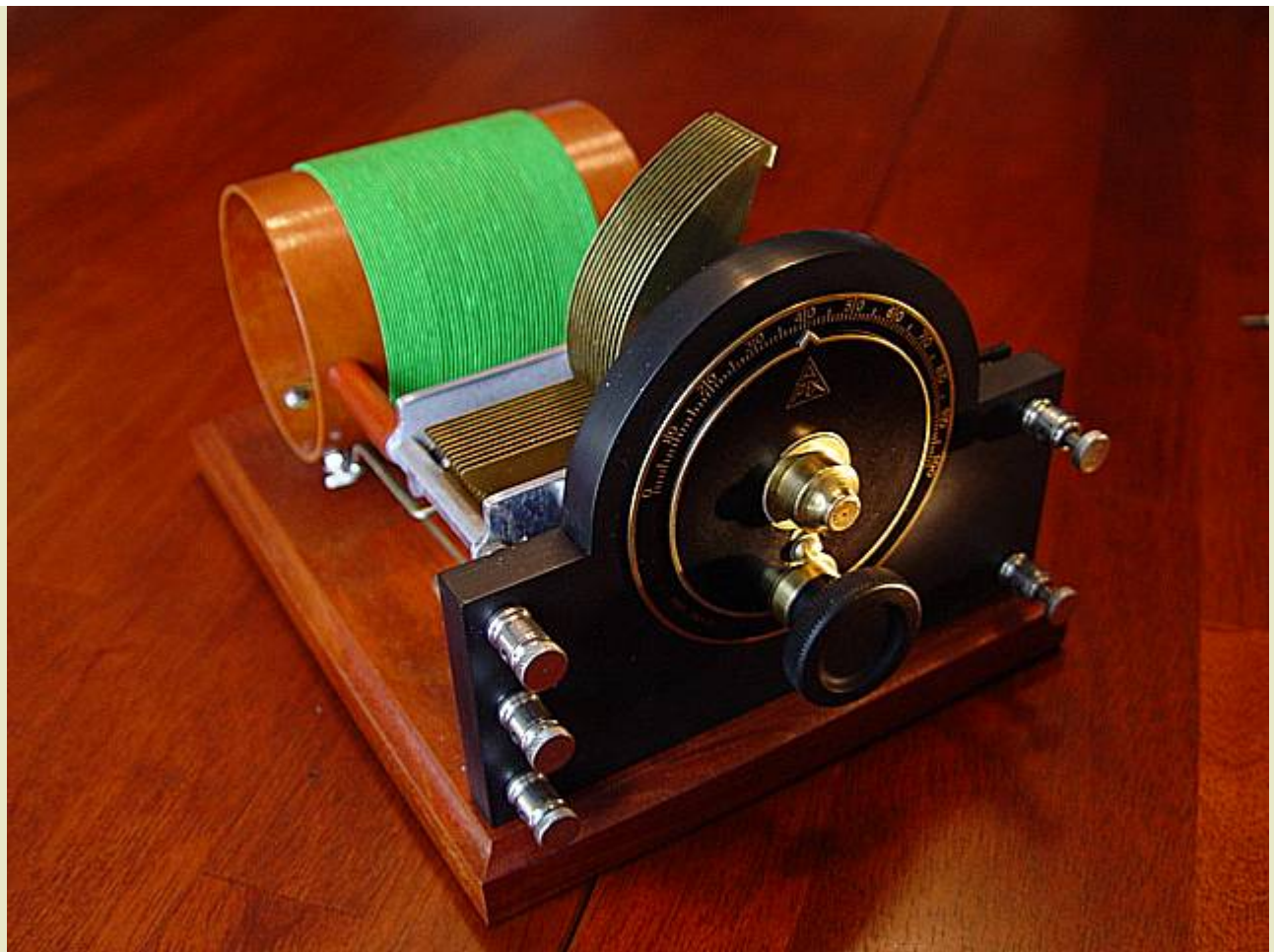


Left side view. I used solid mahogany for the base to which I applied 6 coats of clear gloss lacquer, sanding between each coat. There is no stain on the wood, what you see is the natural color. The wiring is all # 14 square buss wire I obtained from [Antique Electronic Supply](http://www.anticuelectronic.com) several years ago.

Unfortunately, they were not supplying this size when I checked last. If you find a new source for this wire, please let me know. The variable capacitor is an AMSCO straight line frequency unit. Notice the shape of the plates. This makes the tuning spread more evenly across the dial. A very well made part. For the coil construction, I used a piece of three-inch diameter phenolic tubing. The wire is NOS authentic green silk-covered from my collection. I really hate to use any of this wire because it is irreplaceable. Again, if anyone knows a source for this kind of wire, please, please let me know. I usually apply a coat or two of polystyrene when I finish a winding, but I didn't coat this coil because I didn't want to risk changing the look of it. It seems to be very stable the way it is.



Right side view. Here, you can see one of my homebrew crystal detectors. The bypass capacitor is also homebrew with a scanned copy of an original capacitor label.



Another view of the AMSCO capacitor with the unusual plates. If you look closely at the coil, you can see the second winding in between the first.



A closeup of the detector. This is a CARCO style from the 1920's. Here again, I used Delrin® for the base with vintage terminals and all other parts made of brass which I nickel plated. I really like the CARCO catswhisker construction, it is easy to adjust and stays where you leave it. The crystal is a standard Galena mounted in low temp alloy.



Here I am using a set of 3000 ohm Pennsylvania brand headphones. These work fairly well. I have had best results with a matching transformer and sound-powered phones. This set is very selective and you can get more volume on local stations by changing the input connections.

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